

## Chapter 15A-15 - SENSITIVE AREA OVERLAY ZONE

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# Chapter 15A-15 - SENSITIVE AREA OVERLAY ZONE

## 15A-15-01 Purpose

This Chapter shall provide standards, guidelines, and criteria having the effect of minimizing flooding, erosion, and other environmental hazards and protecting the natural scenic character of the sensitive areas and ensuring the efficient expenditure of public funds.

The standards, guidelines, and criteria established by this Chapter shall include, but shall not be limited to the following:

- A. The protection of the public from the natural hazards of storm water runoff and erosion by requiring drainage facilities and the minimal removal of natural vegetation.
- B. The minimization of the threat and consequential damages of fire by establishing fire protection measures.
- C. The preservation of natural features, wildlife habitat, and open space.
- D. The preservation of public access to mountain areas and natural drainage channels.
- E. The retention of natural features such as drainage channels, streams, hillside areas, ridge lines, rock outcroppings, vistas, trees, and other natural plant formations.
- F. The preservation and enhancement of visual and environmental quality by use of natural vegetation, and the minimization of grading in hillside areas.
- G. The assurance of an adequate transportation system for the sensitive area to include consideration of the City's approved Transportation Plan. This system design will consider densities and topography with minimal cuts, fills, or other visible scars.
- H. The establishment of on-site and off-site traffic facilities that ensure ingress and egress for vehicles including emergency vehicles into all developed areas at any time.
- I. The encouragement of a variety of development designs and concepts that are compatible with the natural terrain of the sensitive areas and preserve open space and natural landscape.
- J. The establishment of land use management criteria that will encourage protection of natural elements while allowing a harmonious and satisfying residential environment.
- K. The encouragement of location, design, and development of building sites to provide maximum safety and human enjoyment while adapting the development to the best use of the natural terrain.
- L. The encouragement of the use of creative design teams composed of professional landscape architects, engineers, and others.

M. The encouragement of a regard for the view of the hillsides as well as a view from the hillsides.

### **15A-15-02 Scope and Application**

- A. **Application of the Sensitive Area Overlay Zone.** The Sensitive Area Overlay Zone includes areas of 30% or greater slope; flood plain, streams, lakes, ponds and wet land areas; and areas with a high potential of damage from natural hazards such as surface rupture during an earthquake, rock fall or debris flow, and other similar environmental conditions. Such areas are designated on the map entitled the Sandy City Sensitive Area Overlay Zone Map. A copy of the map drawn, to scale of 1 inch = 1,000 feet, is available for review in the Community Development Department. Regulations of this Chapter may apply to an area outside of the mapped Sensitive Area Overlay Zone if the Director determines that the environmental conditions of the subject area qualify it as a sensitive area, and the map shall thereafter be amended to include such area in the Sensitive Area Overlay Zone.
- B. **Effect of Provisions.** This Chapter makes provisions in addition to those set forth elsewhere in this Code. In the event of conflict between such other provisions and the provisions of this Chapter, the more restrictive provisions shall apply.

### **15A-15-03 Review and Approval Procedure**

- A. **Development Review.** To help expedite review of a development proposal, prior to submitting an application for development in a sensitive area, persons interested in undertaking development may meet informally with a member(s) of the Community Development Department to become acquainted with the substantive and procedural requirements of this Code.

If requested by staff, they shall attend a meeting where representatives from various departments involved in review of developments are generally present including the Community Development Department, Public Works Department, Public Utilities Department, City Attorney's Office, Building & Safety Division, Fire Department, Police Department, Parks and Recreation Department, the Department of Economic Development, and other departments as necessary. This meeting is sometimes referred to as the Development Review Meeting.

At the meeting, the various departments will initially assess the development proposal and information submitted and make suggestions to the prospective developer with respect to the proposal's compliance with the provisions of the appropriate regulations of this Code, the International Building Code, International Fire Code and any other applicable ordinances or codes of Sandy City and provide information concerning the City's review requirements and procedures.

- B. **Application.** Prior to any development activity taking place within a sensitive area, an application for development must be submitted to the Community Development Department and must contain the information and be in the format required by the applicable chapter(s) of this Code (Subdivision, Site Plan Review, Planned Unit Development, etc). All reports shall be prepared by a qualified person licensed in the State of Utah to practice their specialty. If a license is not required, the person shall have demonstrated expertise in the field of practice. In addition to the application requirements set forth in other chapters of this Code, applications for development in sensitive areas shall include certain of the following as determined by the City Engineer:

1. General Development Application Form
2. A topographic contour map, tied to a land-based survey, with coloration, shading or hatching indicating areas within the development site with slopes of less than 10 percent, areas between 10 and 20 percent, areas between 20 and 30 percent, and areas of 30 percent or greater, with contour lines spaced no less than 2 feet apart vertically.
3. Location of the proposed project in relation to abutting public streets.
4. The total acreage, number of lots, and proposed density for proposed residential developments.
5. The total acreage, number of lots, and proposed density for proposed commercial developments.
6. The location and approximate size, in square feet, of the proposed lots including sensitive areas of 30% or greater slope, the usable land for each lot.
7. Location of known hazards (e.g., faults, natural drainage channels, rockfall, debris flow etc.) and the boundaries of the 100 year flood plain, as applicable.
8. Location of other environmentally Sensitive Areas, including wildlife corridors.
9. Proposed location of structures in relationship to all environmentally Sensitive Areas.
10. A General Geotechnical/Geological Report which shall include the following components unless the City Engineer determines a specific component is not applicable to the proposal:
  - a. Soil Characteristics Component which shall include data regarding the nature, distribution, and strength of soils within the project area as well as:
    - (1) Unified classification of all soils with liquid limit, shrink-swell potential, and general suitability for development.
    - (2) Estimate of the normal highest elevation of the water table.
    - (3) Flood history and potential, proximity to known flood plain area and drainage channels, springs, and other hydrological features.
    - (4) Liquefaction analysis.
  - b. Vegetation Component which shall include a slope stabilization and a revegetation report which shall comply with the Water Efficient Landscaping Ordinance and include:
    - (1) Location and identification of existing vegetation.
    - (2) The vegetation to be removed and the method of disposal.
    - (3) The vegetation to be planted.

- (4) Slope stabilization measures to be installed.
- (5) Analysis of the environmental effect of development including effects on slope stability, soil erosion, water quality, fish and wildlife, and fire hazard.
- (6) Topsoil stockpile areas.
- c. Geologic Conditions Component which shall be site specific and shall identify all known, suspected, and potential faults and other geologic hazards. Hazards may originate on or off site. They may have been previously mapped or unmapped. This component shall include but is not limited to the following:
  - (1) Location of active and historical faults and a recommendation for a setback of proposed structures from the fault(s).
  - (2) Characteristics of the geological material and identification of anomalies of the terrain.
  - (3) Depth and geological evaluation of bedrock.
  - (4) Map of hazards or any features of interest.
  - (5) Boring and test pit logs and trench reports.
  - (6) Slope stability analysis, including the angle of repose.
- d. Debris Flow Hazard Component which shall be site specific and shall identify all known, suspected, and potential hazards caused by the flow of rock, soil, organic material, and water in any combination of the above. The report will include but is not limited to the following:
  - (1) Boring, test pit and trench logs.
  - (2) Estimates of the number and frequency of past events and their thickness and volume.
  - (3) Estimates of the recurrence, depth, and impact forces of future events.
- e. Rock Fall Hazard component which shall be site specific and shall identify all known, suspected, and potential hazards caused by a rock or rocks falling, rolling, sliding, or taking the form of an avalanche. The report shall include, but is not limited to, the following:
  - (1) Estimates of the number and frequency of past events.
  - (2) Estimates of the recurrence and impact forces of future events.
  - (3) Modeling results.
- f. Grading and Drainage Plan(s). The plan(s) shall include a storm water management and erosion grading plan on the methods by which surface water, natural drainages, flooding, erosion, and sedimentation loss will be accommodated during and after construction. The plan

shall include the following information:

- (1) Grading Plan. The grading plan shall show existing and proposed elevation contours, tied to a land-based survey and shall include elevations, lines, and grades including the location and depth of all proposed cuts and fills of the finished earth surfaces using a contour interval of 2 feet or less. Access or haul road location, treatment, maintenance requirements and limits of disturbance shall be included.
- (2) Cleared Area. The proposed area to be graded shall be clearly delineated on the plan, and the area amount stated in square feet.
- (3) Drainage Calculations and Details. All calculations and any required details used for design and construction of debris basins, impoundments, diversions, dikes, waterways, drains, culverts and other water management or soil erosion control measures shall be shown.

Calculations shall employ predictions of soil loss from sheet erosion using the Universal Soil Loss Equation or appropriate equivalent. Equations should include factors of:

1. Rainfall intensity and energy.
  2. Soil erodibility.
  3. Land slope and length of slope or topography.
  4. Condition of the soil surface and land management practices in use.
  5. Surface cover, e.g. grass, woodland, crop, pavement, etc.
11. The City Engineer may require trenching, boring, and test pits along with additional information for developments in the Sensitive Area Overlay Zone.
  12. All reports shall identify any potential impacts or hazards resulting from construction or disturbance by the development and include written recommendations for construction of proposed improvements and other measures to mitigate potential impacts and hazards.
  13. The City may require proposed lots, streets and structures to be staked for field inspection.
  14. All engineering calculations performed and acquired pursuant to the provisions of the ordinances of Sandy City shall be made available to the City Engineer, as a part of the review and approval process, so that the City Engineer can better advise the Planning Commission.

#### **C. Preliminary Review.**

Upon submittal of an application and all supporting information and attendance at a Development Review Meeting, if necessary, the application for the development proposal shall be forwarded to the reviewing departments and agencies. They will review it preliminarily to determine if the application and plan, together with all supporting information, is complete and complies with all

the requirements of this Code, including the Sensitive Area Development Standards as set forth hereafter, and other applicable City and agencies' standards.

If the departments and agencies reviews determine that all required, necessary, and requested information has not been submitted, or that some of the specifics of the plan or information do not comply with the requirements of this Code, the applicant will be notified in writing and/or on the plans of any deficiencies, comments, corrections, and requirements (including additional information and/or studies) to be addressed. The revised application, plan and all required, necessary and requested supporting information must be resubmitted after the appropriate additions and/or corrections are made in order to complete the application.

Upon resubmittal, the development proposal will again be forwarded to the reviewing departments and agencies. The applicant shall be required to resubmit the application for the development proposal and supporting documents to the City until all departments and agencies determine it is complete and complies with the requirements of this Code and other applicable City and agencies' standards. Failure to submit complete information will result in written notification to the applicant that the application is incomplete and the review cannot proceed further until all required, necessary, and requested information is submitted.

When the application is determined to be complete, all development proposals in Sensitive Areas will be submitted to the Planning Commission for Preliminary Review. The Planning Commission will review the development proposal, including staff analysis of all supporting information and all requested supplemental information, to determine if all appropriate impacts have been addressed and to receive public input, when required, concerning impacts and mitigation. The Planning Commission may require additional studies/analyses to enable it to determine what impacts should be addressed and may establish additional requirements to address those anticipated impacts.

After all requested information has been received and reviewed by the Planning Commission, the Planning Commission will determine if Preliminary Review is complete and impose development requirements.

- D. **Final Approval.** After the Planning Commission determines that Preliminary Review is complete and imposes development requirements, the applicant shall submit to the Department a final development plan together with all supporting documents which comply with all requirements, corrections, additions, etc. required by the departments, agencies, and Planning Commission.

The Department, together with the other reviewing departments and agencies, shall review the final development plan to determine compliance with all requirements, corrections, additions, etc. When the final development plan has been determined to be complete and in compliance with all requirements, all fees paid and guarantees posted, the plan shall be approved and signed by the appropriate City departments and officials.

- E. **Appealing a Land Use Authority's Decision.** The applicant, a board or officer of the municipality, or any person adversely affected by the land use authority's decision administering or interpreting a land use ordinance may, within the time period provided by ordinance, appeal that decision to the appeal authority by alleging that there is error in any order, requirement, decision or determination made by the land use authority in the administration or interpretation of the land use ordinance.



F. **Panel of Experts for Appeals of Geologic Hazard or Sensitive Areas.** An applicant who has appealed a decision of the land use authority administering or interpreting the Sensitive Area Overlay Zone may request the City to assemble a panel of qualified experts to serve as the appeal authority for purposes of determining the technical aspects of the appeal. If the applicant makes a request for a panel of qualified experts, the City shall assemble the panel which shall consist of, unless otherwise agreed by the applicant and the City:

1. One expert designated by the City;
2. One expert designated by the applicant; and
3. One expert chosen jointly by the City designated expert and the applicant's designated expert.

A member of this expert panel assembled by the City may not be associated with the application that is the subject of appeal. The applicant shall pay one-half (½) of the cost of the panel as well as the City's appeal fee that is established by the City Council.

## **15A-15-04 Development Standards for Sensitive Areas**

### **A. Standards for Sensitive Areas Containing 30% or Greater Slopes**

#### **1. Usable Land.**

- a. Single family structures shall be located only upon areas constituting usable land, which area shall be fully contiguous, be at least 5,000 square feet in size and have a minimum dimension, both length and width, of 50 feet.
- b. All other structures, including clustered single family, multi-family, commercial, industrial, institutional, and accessory structures, shall be located upon usable land as may be determined through site plan review of the impacts of development and proposed mitigation measures to address those impacts including aesthetic concerns.

#### **2. Setback requirements.**

- a. No dwellings or accessory structures shall be constructed within an average of 20 feet (no point being closer than 10 feet) of a continuous hillside slope (upslope or downslope) of 30 percent or greater. The City Engineer may require greater setbacks from the slopes based on geotechnical information.
- b. All other structures which require a building permit, including commercial, industrial, institutional, and structures accessory thereto, shall be setback as may be determined through site plan review of the impacts of development and proposed mitigation measures to address those impacts including aesthetic concerns.
- c. Structures requiring a building permit shall be set back no further than 150 feet from a public or private street unless otherwise approved by the Fire Marshall.

3. **Trails.** A trail may be constructed to access upper/lower portions of residential/commercial property subject to the following conditions:
  - a. No cut or fill of the hillside may be in excess of 2 feet. All cuts or fills shall be properly retained.
  - b. The trail should follow a meandering course and not use a direct line pathway to the desired location. Where possible, the trail should follow the natural contours of the hillside.
  - c. The trail shall be screened with native landscape materials.
  - d. The trail plan shall be submitted to the Director and City Engineer for review and must be approved prior to any construction and/or hillside cuts.
4. **Fencing.** All fences located on slopes of 30 percent or greater shall be dark brown, dark green or black vinyl coated chain link to blend in with the native landscaping. In no case shall the following types of fences be allowed: uncoated chain link, masonry, block, wood, or other sight obscuring material. Fence construction shall comply with the Environmental Hazards Element as contained in the General Plan.

## B. Development Standards for All Sensitive Areas

1. **Maximum Impervious Material Coverage.** The maximum impervious material coverage that shall be allowed upon lots:
  - a. Upon which structures are located shall be 50 percent for those in residential zoning districts of R-1-15 or below and 40 percent for those in zoning districts of R-1-20 or above of the total lot area (excluding pad lots and clustered subdivisions) including dwelling units, accessory buildings, patios, decks, and driveways, etc. provided, however, that the maximum impervious material coverage may exceed the allowable percentage upon review and approval of a special exception by the Planning Commission. The Planning Commission shall use the following criteria when making a decision to increase lot coverage:
    - (1) The home is of comparable size to other homes in the general vicinity;
    - (2) The increase is needed to create a safe drive access for the home; and
    - (3) The increase is the minimum required to meet (1) and (2) above.
  - b. Upon which multi-family dwellings, commercial, industrial, institutional, pad lots, clustered subdivisions and accessory structures are proposed shall be determined during site plan review and approved by the Planning Commission. The Planning Commission will base their decision on information received from the developer in relation to mitigation measures which can be imposed to handle excess run-off.
2. **Drainage and Erosion.**
  - a. Lots shall be arranged so as to ensure adequate setbacks from drainage channels as determined

- by the City Engineer after review of the submitted reports. No structures shall be allowed in the 100-year flood plain.
- b. Facilities for the collection of storm water runoff shall be required to be constructed on development sites and according to the following requirements:
- (1) Such facilities shall be the first improvement or facilities constructed on the development site with the exception of sewer and water lines.
  - (2) Such facilities shall be designed to detain safely and adequately the maximum expected storm water runoff for a 25 year storm (together with the storm water discharge from the site not to exceed 0.2 cubic feet per second per acre or at a rate not higher than the flow rate before development of the site, whichever is less) on the development site for a sufficient length of time to prevent flooding and erosion during storm water runoff flow periods.
  - (3) Such facilities shall be designed to divert surface water away from cut or fill surfaces.
  - (4) As much as possible, the existing natural drainage system shall be utilized in its unimproved state.
  - (5) Where drainage channels are required, wide shallow swales, lined with appropriate vegetation, shall be used instead of cutting narrow, deep drainage ditches.
  - (6) Flow retarding devices, such as detention/retention ponds and recharge berms, shall be used, where practical, to minimize increases in runoff volume and peak flow discharge rate due to development. Areas which have shallow or perched groundwater or areas that are unstable shall be given additional consideration, and additional requirements may be imposed.
- c. Construction on the development site shall be of a nature that will minimize the disturbance of vegetation cover, especially between December 1 and April 15 of the following year.
- d. Erosion control measures on the development site shall be implemented to minimize the increased solids loading in runoff from such areas. An Erosion Control Plan (the detailed design system to control storm water erosion during and after construction) shall be included in the Grading and Drainage Plan(s) described in this Chapter.
- e. The area of the watershed shall be used to determine the amount of storm water runoff generated before and after construction as follows:

The Rational Method or other method as approved by the City Engineer shall be used in computing runoff. The basic formula for the rational method is:

$Q = CIA$  in which:

$Q$  = Runoff in cubic feet per second (cfs)

$C$  = Coefficient of runoff

I = Average rainfall intensity during time of concentration for 25 year return period in inches per hour. The time of concentration shall be defined as the time required for water to flow from the most remote point of the section under consideration to the point of collection or discharge.

A = Drainage area in acres.

The following ranges for C value are typical examples. The actual C value used shall be approved by the City Engineer.

<b>Table of Runoff Coefficients</b>	
<b>Type of Development</b>	<b>Runoff Coefficient</b>
Industrial & Commercial	.80 - .90
Residential	.30 - .40
Parks	.15 - .24
Agricultural	.10 - .20

### 3. **Vegetation and Revegetation.**

- a. Vegetation shall be removed only when absolutely necessary for the construction of buildings, roads, and filled areas.
- b. All areas on development sites cleared of natural vegetation in the course of construction of off-site improvements shall be replanted with vegetation which has good erosion control characteristics.
- c. New plantings shall be protected with a mulch material and fertilized in conjunction with the planting and watering schedule described in paragraph e below.
- d. The use of persons or firms having expertise in the practice of revegetation (e.g., licensed landscape architects or certified nurserymen) shall supervise the planting and installation of revegetation cover.
- e. After the completion of off-site improvements, vegetation should be planted in all disturbed areas during the following time periods only:
  - (1) March 15 through May 15; and September 15 through October 31.
  - (2) If irrigated, planting may be done during summer months.
- f. Generally, no vegetation shall be removed on a continuous hillside, crest (upslope or downslope), with a slope 30 percent or greater. However, for uses such as trails and open

space improvements, the City Engineer may approve designated areas of vegetation that can be removed or disturbed in conjunction with a revegetation or slope stabilization plan.

- g. Topsoil removed during site construction shall be reserved for later use on areas requiring vegetation or landscaping such as cut and fill slopes.
- h. All disturbed soil surfaces shall be stabilized or covered prior to November 1<sup>st</sup>. If the planned impervious surfaces (e.g., roads, driveways, etc.) cannot be established prior to November 1<sup>st</sup>, a temporary treatment adequate to prevent erosion shall be installed on those surfaces.
- i. The property owner and/or developer shall be fully responsible for any destruction or damage of native or applied vegetation identified as necessary for soil retention and shall be responsible to replace such destroyed vegetation. They shall carry the responsibility both for employees and subcontractors from the first day of construction until the final acceptance of improvements. The property owner and developer shall replace all destroyed vegetation with varieties of vegetation approved by the Director.

#### 4. **Geology.**

- a. Dwellings and commercial buildings shall be setback from any active faults as required by the City Engineer.
- b. No dwellings, commercial buildings or off site improvements shall be allowed on any area considered to be susceptible to landslide, rockfall or debris flow or problems associated with perched or shallow ground water, except as approved by the City Engineer. Special requirements to mitigate the potential effects of such hazards may be imposed by the City Engineer prior to approval of the project or issuance of building permits.

#### 5. **Fire Protection.**

- a. Areas without a recognized water supply shall meet special requirements as established by the Planning Commission, upon recommendation of the City Fire Marshal.
- b. Each development site and building permit for lots, flag lots, and lots where the front setback is greater than 50 feet shall be reviewed by the City Fire Department to see that it complies with the International Fire Code regarding access roadways for fire apparatus.
- c. Spark arresters shall be installed in every fireplace constructed for indoor or outdoor use as regulated by the most current version of the International Fire Code.
- d. Development adjacent to public lands shall provide access to these lands for fire protection vehicles and equipment.
- e. Buildings and structures constructed in areas designated by Sandy City as Wildland - Urban Interface Areas shall be constructed using ignition resistant construction as determined by the Fire Marshal. Section 502 of the 2006 International Wildland - Urban Interface Code (IWUIC) as it may be amended from time to time, as promulgated by the International Code Council, shall be used to determine Fire Hazard Severity. A copy of the map designating the

Wildland - Urban Interface area is located in the office of the Sandy City Fire Marshal.

**6. Grading, Cuts and Fill.**

- a. Exposed unstable surfaces of a cut or fill shall not be steeper than one vertical to two horizontal.
- b. All permanent fill shall be stabilized and finished to reduce risk associated with settling, sliding or erosion.
- c. The top and bottom edges of slopes caused by an excavation or fill up to 10 vertical feet shall be at a minimum of 3 horizontal feet from the property line or public right-of-way lines.
- d. The maximum vertical height of all cuts or fills shall be 10 feet. Under exceptional circumstances, the Planning Commission may approve cuts or fills in excess of 10 feet with a recommendation from the City Engineer. Cuts or fills shall be measured from natural grade to finished grade. The burden of demonstrating exceptional circumstances shall be on the developer of the property, but may include:
  - (1) Cutting or filling of areas designated as anomalies.
  - (2) Cutting to allow for required sight triangles.
  - (3) Areas previously modified, altered or disturbed.
  - (4) Cuts or fills as required by the City Engineer to mitigate any unsafe condition such as slopes exceeding 50%.
  - (5) Unusual topographic features such as bowls or rises that don't exceed slope limitations but may inhibit sound construction.
  - (6) Other conditions as approved by the Planning Commission.
- e. All structures, except retaining walls or soil stabilization improvements, shall have a setback from the crest of the fill or base of the cut of a minimum distance equal to the depth of the fill or the height of the cut, unless a structurally sound retaining wall is built for the cut or fill slope.
- f. No grading, cuts, fills, or terracing will be allowed on a continuous hillside of 30% or greater slope, crest (upslope or downslope) unless otherwise determined by the Planning Commission upon recommendation of the Director and City Engineer.

**7. Streets and Ways.** Streets, roadways, and private access ways shall follow as nearly as possible the natural terrain. The following additional standards shall apply:

- a. At least two points of ingress/egress shall be provided for each subdivision or PUD project unless the project has one or more of the following:

1. a single cul-de-sac, hammerhead, or other approved turn-around approved by the Fire Marshal and City Engineer, that complies with all development standards herein.
  2. an emergency access approved by the Planning Commission.
  3. the future extension of a stub street that will provide additional access, including a temporary turn-around approved by the Fire Marshall and City Engineer.
- b. Points of access shall be provided to all adjoining developed and non-developed areas for emergency and fire fighting equipment. Driveways located upon each lot extending from a public or private street shall have sufficient width and design to admit and accommodate fire fighting equipment in compliance with all City engineering and fire standards.
  - c. Cul-de-sacs shall not exceed 600 feet in length and shall have a turnaround with a back of curb line radius of at least 46 feet.
  - d. Stub streets that are longer than 150 feet shall have a temporary turnaround.
  - e. Centerline curvatures should not be less than a 100 foot radius on any curved street pattern unless otherwise approved by the City Engineer.
  - f. Variations of the street design standards developed to solve special visual aesthetics and functional problems may be presented to the Planning Commission upon recommendation from the City Engineer for consideration and approval. Examples of such variations may be the use of split roadways to avoid deep cuts, one-way streets, modifications of surface drainage treatments, sidewalk design, or the extension of a cul-de-sac.
  - g. Development sites which are located near canyon trails shall provide access to those trails. Parking areas at trailheads may be required by the Planning Commission.
  - h. The maximum amount of impervious surface for streets and roadways shall be 20 percent of the entire development site.
  - i. All streets or rights-of-way for vehicular traffic shall be subject to the following limitations:
    - (1) The maximum grade of such streets or rights-of-way shall be 12 percent except that the City Engineer, may grant approval for the construction of such streets or rights-of-way having a grade exceeding 12 percent, but the grade of such streets shall not, in any event, exceed 15 percent.
    - (2) Roads shall be designed to meet the Department of Public Works Standards & Specifications for Municipal Construction.

#### **8. Architectural Design.**

- a. Buildings proposed for construction in hillside or canyon areas shall be designed to be visually compatible with the natural setting of the hillsides and canyons. The use of building materials in colors that will blend harmoniously with the natural settings are encouraged. Such materials



- as wood or composite materials such as hardi-plank, brick (earth colors) and stone, with architectural-grade asphalt shingle or tile, are considered to be most appropriate.
- b. The Planning Commission shall review the design and specified exterior materials and colors for all structures other than single family dwellings. The design and materials shall comply with the City Architectural Design Standards. Building permits for such structures shall not be granted until building materials and colors have been approved by the Planning Commission.
  - c. Innovative designs for single family dwelling units; e.g., earth-sheltered dwellings with grass roofs, etc., may be allowed after approval by the Planning Commission and Building and Safety Division.
9. **Developer/Property Owner Responsibility.** The developer/property owner shall be jointly and severally responsible for making all improvements in accordance with the development site approval.
10. **Guarantee for Improvements.** In addition to the provisions requiring the posting of a guarantee as set forth elsewhere in the ordinances of Sandy City, the property owner may be required by the Director and City Engineer to guarantee the completion of revegetation projects, the stabilization of grading sites, cuts and fill and construction of storm water runoff facilities.
- C. **Jordan River Regulations.** In addition to those requirements specifically outlined in Chapter 17.10 of the Salt Lake County Code, the following requirements shall be completed prior to development:
1. The Jordan River Basin has been identified and mapped by Salt Lake County as having a "High Liquefaction Potential". Because of this special characteristic of this area, a site specific natural hazards study for residential subdivisions, single family structures, multi-family residential structures, industrial, and commercial buildings must be completed and accepted by the Sandy City Engineer before approval for required permits, licenses, and other approvals is issued. The study shall address the soil conditions of the property to be developed, the natural hazards that exist, and proposed mitigation measures to mitigate, if possible, the natural hazards. If the natural hazard cannot be mitigated in a satisfactory manner, no approval shall be given by the Sandy City Engineer.
  2. All developments shall comply with the recommendations as made by the Jordan River District and Parkway Development Study completed by Bingham Engineering and accepted by Sandy City in February 1995. Copies of that study are on file with the City for information and inspection by the public.

### 15A-15-05 Special Exceptions

- A. **Previously Platted Lots.** If a lot which contains or is adjacent to 30% or greater slopes was platted, approved and recorded prior to the adoption of sensitive area (or similar) regulations either in Salt Lake County or Sandy and such lot does not comply with Sandy City's current Sensitive Area Overlay Zone, a property owner may request a special exception from the Director to allow construction on the property at reduced or no setback from the 30% or greater slope. If it is determined that this exception



applies, the lot will not be required to proceed through Sensitive Area Overlay Zone review though special requirements to protect the health, safety and welfare of the lot owner and residents of the City will be imposed before the issuance of a building permit. A property owner may request this exception only if the lot complies with the following:

1. **Qualifications.** Property which qualifies for the exception is limited to the following:
  - a. subdivision lots approved and recorded prior to the enactment of sensitive overlay (or similar) regulations which were applicable to the property, or subdivision lots approved and recorded under different regulations than currently apply to the property; and
  - b. the lot contains or is adjacent to 30% or greater slope and cannot be built upon in compliance with the setbacks required by the Sensitive Area Overlay Zone in effect at the time the request is made; and
  - c. the lot does not have the amount of usable land area required by the Sensitive Area Overlay Zone in effect at the time the request is made; and
  - d. the slope is stable and suitable for construction as determined by the City Engineer; and
  - e. Measures can be imposed which mitigate or eliminate hazards created by construction near the slope; and
  - f. the development shall comply with all other requirements of the Code including driveway slopes and cuts and fills unless the Board of Adjustment approves a variance.
2. The following information shall be submitted for review and recommendation of the Director and City Engineer prior to approval of a building permit:
  - a. Evidence that the lot was platted prior to the imposition of sensitive area overlay (or similar) regulations or in compliance with previous regulations.
    - (1) Evidence shall include copies of the subdivision plat approval and recordation and copies of the regulations which governed the subdivision at the time it was approved and recorded.
    - (2) If it is claimed that no regulations were in effect at the time the subdivision plat was approved and recorded, a statement from the appropriate governmental entity that a search of their records was conducted and that no regulations were in effect.
  - b. A geotechnical report from a licensed civil engineer that identifies the following:
    - (1) The depth of undisturbed soil below grade.
    - (2) Soil compaction and stability.
    - (3) Rock fall and debris flow potential.

- (4) Angle of repose.
    - (5) Conditions on or near the property which if disturbed by construction may create hazards to the property or adjacent property.
    - (6) Recommendations for construction and siting to assure safety of the development and adjoining properties from these hazards.
  - c. Before the construction of a structure (e.g. single family dwelling, multi-family dwelling, commercial building, accessory structure, pool, etc.) shall be allowed, an engineered plot plan stamped and signed by a licensed civil engineer, licensed surveyor or licensed architect shall be submitted and include the following information:
    - (1) Location of all existing and proposed structures.
    - (2) Existing and proposed contour lines at two-foot intervals.
    - (3) Retaining walls or other measures to address the safety of the subject and adjoining properties if determined necessary by the City Engineer.
    - (4) Existing and proposed vegetation types and locations.
  3. The City Engineer and Director may impose requirements on the building permit as follows:
    - a. to mitigate or eliminate anticipated impacts from development.
    - b. for guarantees which are established specifically to ensure the completion and maintenance of the special exception requirements. The guarantee shall be established for a period of time to be determined by the Director and the City Engineer to assure that the mitigation measures are effective and remain in place and functional.
    - c. That a notice be recorded on the property with the County Recorder that indicates the nature of the special exception, that mitigating measures have been imposed and that those measures cannot be removed or altered without the prior review and approval of the City Engineer and Director.
  4. If a property owner is requesting to build on the 30% or greater slope, an application for a variance from the Board of Adjustment shall be submitted.
- B. Previously Disturbed or Developed Slopes.** A property owner whose property contains or is adjacent to 30% or greater slope(s) may request a special exception to allow construction at reduced setbacks or no setback from the slope or on the slope. A property owner may request the exception during the preliminary review or, upon individual lots, after final development approval.
1. **Qualifications.** Property which qualifies for the exception is limited to the following:
    - a. The property contains or is adjacent to areas of 30% or greater slope; and

- b. The slope was previously disturbed or altered; and
  - c. The disturbance or alteration was conducted legally either prior to the imposition of any sensitive area regulations on the property or was consistent with the sensitive area regulations in effect at the time the disturbance or alteration was conducted; and
  - d. The slope is stable and suitable for construction as determined by the City Engineer; and
  - e. Measures can be imposed which mitigate or eliminate hazards created by construction near to or additional disturbance or alteration of the slope; and
  - f. All development on the property complies with all other requirements of the current Development Code, such as driveway slopes and cuts and fills, maximum impervious coverage, etc.
  - g. No other exceptions or any variances are requested or necessary.
2. The property owner shall submit the following for review and recommendation of the Director and City Engineer to the Planning Commission:
- a. All submittals required for preliminary and final review of property within a Sensitive Area Overlay Zone.
  - b. Evidence that the disturbance or alteration occurred legally prior to the imposition of sensitive area overlay (or similar) regulations or consistent with sensitive area overlay (or similar) regulations in effect at the time the disturbance or alteration occurred.
    - (1) Evidence shall include copies of permits from the governmental entity that had authority to issue such permits at the time the alteration/disturbance took place accompanied by copies of any sensitive area (or similar) regulations in effect at the time of the disturbance or alteration.
    - (2) If copies of permits are not available, the following may be acceptable: credible evidence in the form of documents (including photographs) or sworn affidavits from an individual(s) with first hand knowledge documenting when the work was done, by whom and whether it was legal or not, together with written statements from the appropriate governmental entity that a search of their records was conducted and that either no permit was found, no permit was required, and/or no regulations were in effect and that the work was consistent with all regulations in effect at the time it was performed.
  - c. A study and report from a licensed civil engineer which specifically addresses the slopes upon which the applicant is requesting reduced setbacks including geologic conditions, soils, and vegetation, impacts of development (including aesthetics) and recommended mitigation measures for those impacts. (This information may be contained in the geologic report submitted with the application).
3. The Planning Commission may grant the Special Exception and establish a reduced setback from the 30% or greater slope, determine that no setback from the slope is required or allow building on

the slope if it finds that the property complies with all the Qualifications for the exception listed above.

4. The Planning Commission shall impose requirements:
    - a. to mitigate or eliminate anticipated impacts from development and
    - b. for guarantees which are established specifically to ensure the completion and maintenance of the special exception requirements. The guarantee shall be established for a period of time to be determined by the Director and City Engineer to assure that the mitigation measures are effective and remain in place and functional.
    - c. that a notice be recorded on the property that indicates the nature of the special exception, that mitigating measures have been imposed and that those measures cannot be removed or altered without the prior review and approval of the City Engineer and Director.
- C. **Determination of Anomalies for 30 Percent or Greater Slopes.** The City Engineer shall review all requests for development on 30% or greater slopes to determine if anomalies exist. If an anomaly is determined to exist, the City Engineer shall forward to the Planning Commission a recommendation regarding development of the area affected by the anomaly. This recommendation will be made as part of the preliminary review of the project. The City Engineer shall consult the Public Works Department Policy prior to making a recommendation.

#### **15A-15-06 Construction, Grading and Contour Map and Issuance of Building Permits.**

- A. There shall be no construction, development, or grading upon the development site until final approval has been granted.
- B. Before the construction of a structure upon lot(s) shall be allowed, an engineered plot plan stamped, dated and signed by a licensed civil engineer, licensed surveyor or licensed architect, shall be submitted. The plot plan shall be drawn to a standard scale (at least 1" = 10' or other scale approved by the City Engineer) and shall be submitted to the Director or designated staff representative. The plot plan shall show lot lines, existing and proposed contours at two foot intervals, location of proposed structures, walks, decks driveways, patio areas, etc. The plot plan shall also include vegetation, drainage, erosion controls, and location of limits of disturbance fencing (required) and be attached to the building permit.